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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) | |
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| | 10/580,976 | FOEGLER ET AL. | |
| Office Action Summary | Examiner | Art Unit | |
| | MICHELE JACOBSON | 1782 | |
| The MAILING DATE of this communication ap Period for Reply | pears on the cover sheet with | the correspondence address | |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | OATE OF THIS COMMUNICA 136(a). In no event, however, may a repl will apply and will expire SIX (6) MONTH e, cause the application to become ABAN | TION. be timely filed from the mailing date of this communication. DONED (35 U.S.C. § 133). | |
| Status | | | |
| 1) ■ Responsive to communication(s) filed on 11 3 2a) ■ This action is FINAL . 2b) ■ This 3) ■ Since this application is in condition for allower closed in accordance with the practice under | s action is non-final. ance except for formal matter | · | |
| Disposition of Claims | | | |
| 4) Claim(s) 1.4 and 6-32 is/are pending in the ap 4a) Of the above claim(s) is/are withdra 5) Claim(s) is/are allowed. 6) Claim(s) 1.4 and 6-32 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/orange. | awn from consideration. | | |
| Application Papers | | | |
| 9) The specification is objected to by the Examina 10) The drawing(s) filed on is/are: a) accomposed as a specific at any objection to the Replacement drawing sheet(s) including the correct and the specific accomposed as a specific accomposed accomposed as a specific accomposed accomposed as a specific accomposed accomposed accomposed as a specific accomposed as a specific accomposed | cepted or b) objected to by drawing(s) be held in abeyance ction is required if the drawing(s) | . See 37 CFR 1.85(a). is objected to. See 37 CFR 1.121(d). | |
| Priority under 35 U.S.C. § 119 | | | |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documen 2. Certified copies of the priority documen 3. Copies of the certified copies of the priority documen application from the International Burea * See the attached detailed Office action for a list | ts have been received. ts have been received in Appority documents have been re au (PCT Rule 17.2(a)). | lication No ceived in this National Stage | |
| Attachment(s) | _ | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date | Paper No(s)/N | nmary (PTO-413) Mail Date rmal Patent Application | |

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DETAILED ACTION

Examiner Notes

1. Any objections and/or rejections made in the previous action, and not repeated below, are hereby withdrawn.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 3. Claim 32 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
- 4. New claim 32 recites that the food casing is "inedible". Applicant asserts on page 8 of the remarks submitted 1/11/11 that support for this limitation is implicitly present within the embodiment of page 13, lines 25 through 30 of applicant's specification. However, this embodiment makes no mention of whether or not the

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casing produced is inedible, nor is there any reason one of ordinary skill in the art would implicitly assume that this casing was inedible, since whether something is edible is often a subjective assessment. Furthermore, the casing of this embodiment comprises 5.7% cellulosic filler which is outside the range of cellulosic filler claimed in independent claim 1, from which claim 32 depends. Therefore, there is no support in applicant's specification as filed to support the limitation of the casing of claim 32 to be inedible.

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 1, 4, 6-8, 10-17 and 19-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siebrecht et al. U.S. Patent No. 5,043,194 (hereafter referred to as Siebrecht) in view of Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and reference, hereafter referred to as Hammer).
- 7. Siebrecht teaches a sausage casing comprising a textile layer coated with cellulose that imparts a decorative, sturdy appearance to the known tubular packaging casings based on cellulose. (Col. 1, lines 55-60, Col. 2, lines 40-45) The textile

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reinforcing layer can comprise cellulose fibers as well as polyamide and polyester fibers. (Col. 3, lines 54-57) The weight per unit area of the reinforcing layer is recited to be in the range of 10 to 400 g/m². (Col. 4, lines 17-21) The casing may also comprise a fiber based reinforcement in the form of long fibered paper. (Col. 3, lines 12-14) The long fibered paper usually has a weight per unit area of 17 to 28 g/m². (Col. 3, lines 14-15)

- 8. The thickness of the outer cellulose layer is recited to be below 100 µm and in particular below 50 µm so that the texture of the textile reinforcement may be observed. (Col. 2, lines 56-63) The weight per unit area of the composite comprising the textile layer and the coating is about 30 to 200 g/m². (Col. 3, lines 46-48) The casing of Siebrecht can be shirred for use on typical stuffing apparatus. (Col. 5, lines 28-32) The casing of Siebrecht may also further comprise a barrier layer which prevents penetration of atmospheric oxygen. (Col. 5, lines 27-28)
- 9. The casing of Siebrecht is produced by overlapping the edges of a textile sheet shaped structure and adhering them to one another to form a tubular structure which is then impregnated with coating agent. (Col. 4, lines 39-51) This process is disclosed to produce a seamless casing. (Col. 4, lines 25-27)
- 10. The casing of Siebrecht may comprise the coating on the inside and/or the outside. (Col. 4, lines 47-48)
- 11. Siebrecht is silent regarding utilizing a protein coating.
- 12. Hammer teaches a shaped body in the form of a flat or tubular film based on plastifiable biopolymers or cleavage products or derivatives thereof and/or synthetic

polymers of natural monomers useful as a sausage casing. (Col. 1, lines 42-55)

Preferred examples of the plastifiable biopolymers include extrudable gelatins and other natural proteins, alginic acids and alginates and carrageenan. (Col. 2, lines 38-46) The content of the biopolymers is generally from 10% to 90% by weight based on the total weight of the shaped body. (Col. 2, lines 54-58) Preferably, two or more of the starting biopolymers are used together. (Col. 2, lines 59-60) They are expediently uniformly mixed and plastified at relatively high temperatures by relatively long kneading in a twinscrew extruder in the presence of a plasticizer, a plasticizing aid (=lubricant), a hardener (=crosslinker) and, if appropriate, a filler. (Col. 2, lines 60-64) The composition is also recited to include pigments. (Claim 13)

- 13. Hardeners or crosslinkers which can be used include caramel (caramelized sugar, maillose) and dialdehydes (especially glyoxal and glutardialdehyde). (Col. 3, lines 14-17) The content of crosslinkers is generally from 0.2 to 30% by weight. (Col. 3, line 27)
- 14. The tubes are recited to be extruded and can be treated internally and externally to modify their properties. Generally, the tubes are gathered in sections and the resultant shirred sticks are processed on conventional machines. The seamless tubular films are particularly suitable as sausage casings, in particular for small sausages. In addition, the shaped bodies of the invention are also suitable for packaging other foods, e.g. cheese. (Col. 4, lines 33-47) The composition of the invention may also be utilized in a multilayer film including three layers wherein a fibrous polymer pulp is extruded into two fiber-free layers. (Col. 3, lines 55-57)

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15. In another embodiment, a thermoplastic sheet was produced from the inventive composition which was used to wrap meat products such as cooked ham. The sheet was also recited to be covered with a net for cooking the ham which presumably provided additional reinforcement. (Col. 5, lines 30-35) The film was recited to be oxygen and smoke permeable while having low liquid and fat permeability. (Col. 5, lines 33-35)

- 16. Hammer further discloses that the process used to produce the inventive casing is simple, inexpensive and environmentally friendly since the casings are produced from natural raw materials. (Col. 1, lines 39-41) The films of the invention generally have a thickness from 20 to 120 μ m. (Col. 2, lines 24-30)
- 17. Both Siebrecht and Hammer are directed to sausage casings. One of ordinary skill in the art would have been motivated to substitute the inventive film of Hammer for the cellulose coating disclosed by Siebrecht by laminating the film of Hammer to the reinforcement disclosed by Siebrecht in order to produce a more environmentally friendly product that would not require the harsh chemicals required for the viscose process disclosed by Siebrecht.
- 18. Since the film of Hammer is disclosed to be produced within the thickness range disclosed to be necessary for the invention of Siebrecht the textural features of the reinforcement layer would still be visible through the film of Hammer. "When a patent claims a structure already known in the prior art that is altered by mere substitution of one element for another known in the field, the combination must do more than yield a predictable result." *KSR*, 127 S. Ct. at 1740. The obvious substitution of the material of

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21.

Hammer which was known to be suitable for sausage casings for the coating of Siebrecht would have yielded the predictable result of producing a reinforced sausage casing.

- 19. Regarding claims 1, 4, 6, 13-15, 25 and 28: Hammer discloses the same coating material as claimed in claims 1, 6, 13-15 and 25. The reinforcement layer of Siebrecht is comprised of the same materials and has the same weight per unit area as claimed in claims 1, 4, 25 and 28. The material disclosed by Hammer extruded onto a reinforcing layer as disclosed in Siebrecht is interpreted to read on the limitation that the coating permeates the reinforcement as claimed in claim 1 since the extruded coating material would have been absorbed into the fiber based reinforcement of Siebrecht.
- 20. Regarding claims 7 and 26: Hammer recites that the protein is present in an amount of from 10% to 90% by weight based on the total weight of the composition. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)
- Regarding claims 8 and 10-12: Hammer recites that the composition preferably comprises two or more plastifiable biopolymers. Alginate and carrageenan (a branched polysaccharide) are recited to be useful plastifiable biopolymers along with gelatin. While Hammer does not specifically disclose that alginate and carrageenan act as plasticizers, they are the same compounds claimed by applicant as plasticizers and therefore would be expected to perform the same function. Therefore, the composition recited by Hammer is the same as the claimed in claims 8, 10 and 11.

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22. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized the ratio of gelatin to alginate or carrageenan. Hammer teaches that previously it had not been possible to give alginate based sausage casings the stability necessary. Owing to the action of the sausage emulsion and brine the poorly soluble calcium salt is gradually converted into the readily soluble sodium salt of alginic acid. Alginate casings as a result lose their strength. (Col. 1, lines 29-34) In light of this teaching, one of ordinary skill would not have sought to employ alginate as the majority plastifiable biopolymer and would have utilized it in amounts that were less than 50%. The obvious use of alginate in amounts less than 50% would have produced the invention claimed in claim 12.

- 23. Regarding claim 16: Hammer specifically recites that pigments may be used as claimed in claim 15. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized the amount of pigment or dye used depending on the intensity of the resulting color desired. Such an optimization of the amount of pigments would have produced the invention as claimed in claim 16.
- 24. Regarding claim 17: The examiner takes official notice multilayer sausage casings are universally known in the sausage casings arts comprising layers that do not comprise proteins. Furthermore, Siebrecht specifically teaches the inclusion of a further oxygen barrier layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed an additional non-protein barrier layer or protective layer to the casing of Siebrecht.

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notice. See MPEP 2144.03

method as that claimed in claim 22.

25. It is noted by the examiner that the official notice taken by the examiner in the office action dated 5/11/10 that multilayer sausage casings are universally known in the sausage casings arts comprising layers that do not comprise proteins is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official

- 26. Regarding claims 19-22: While the composition disclosed by Hammer is recited to be extruded, one of ordinary skill would have recognized that it could also be utilized as a coating composition for a casing as disclosed by Siebrecht. Siebrecht discloses that impregnation of the textile reinforcement which has been formed into a tube yields a seamless casing. The examiner takes official notice that it is well known in the sausage casing art that tubular casings may also be formed with a seam by forming a coated sheet into a tubular shape. Instead of extruding the inventive composition of Hammer as a tube, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have applied it as a coating to a sheet of reinforcing material. The coating could then be said to impregnate the fabric material and would permeate the fabric material. This would have been the same as the invention claimed in claim 19. The obvious formation of this impregnated sheet into a tubular casing would have produced a casing with one longitudinal seam which is the same as the invention claimed in claim 20. Such a tube would have been produced by the same
- 27. Additionally, the examiner takes official notice that it is well known in the sausage casing art to support preformed tubular casings with air so that they may be internally or

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externally coated. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have supported a preformed reinforcing fabric tubular article with air while coating it with the composition recited by Hammer. The obvious utilization of this method step would have produced a method the same as that claimed claim 21. It is noted by the examiner that the official notice taken by the examiner in the office action dated 5/11/10 that it is well known in the sausage casing art to support preformed tubular casings with air so that they may be internally or externally coated is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official notice. See MPEP 2144.03

- 28. Regarding claims 23 and 24: The casing of Siebrecht is for sausage as claimed in claim 23 and may be shirred as claimed in claim 24.
- 29. Regarding claims 27 and 31: Siebrecht discloses that the weight per unit area of the composite comprising the textile layer and the coating is about 30 to 200 g/m². It would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized the result effective variable of the thickness of the coating in order to produce a casing with a weight per unit area in the range disclosed to be useful by Siebrecht. This range overlaps and is substantially the same as that claimed in claim 27. The casing produced by the modification of Siebrecht with Hammer would have a water vapor permeability, extensibility and water permeability within the range claimed by applicant since it is made from the same materials disclosed to be useful by applicant. Furthermore, it is well known in the sausage casing art to provide porosity or barrier layers depending on the amount of permeability desired for a sausage casing. It

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would have been obvious to one having ordinary skill in the art at the time the invention was made to have optimized these properties by providing porosity or a barrier layer to the casing produced by the modification of Siebrecht with Hammer depending on the amount of vapor permeability desired. Such an obvious modification would have produced the same water vapor permeability as claimed in claim 27 or water permeability as claimed in claim 31.

- 30. Regarding claim 29: The textile layer of Siebrecht is interpreted to be "self-supporting" as claimed in claim 29 since it able to provide support to the casing disclosed. Siebrecht explicitly discloses that the coating may be applied to the inside and/or outside of the reinforcement material. Therefore, the obvious modification of the embodiment of Siebrecht in which the coating is applied to only the outside of the casing with the teachings of Hammer would have produced the same invention as claimed in claim 29.
- 31. Regarding claim 30: Siebrecht discloses that the casing may also comprise a fibrous paper layer having a weight per unit area of 17 to 28 g/m². This layer also reads on the fiber reinforcement layer claimed in claim 1 and consists of fibrous paper as claimed in claim 30. The range of weight per unit area of this layer overlaps with the range claimed in claim 1 and therefore the weight per unit area of the fiber reinforcement layer claimed in claim 1 is also obviated by this layer of Siebrecht. The woven fabric reinforcement of Siebrecht is recited to comprise a mesh and therefore any coating disposed on top of it would necessarily permeate into the underlying paper layer and being fluid would additionally permeate to some degree into the paper layer.

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Therefore, the obvious modification of Siebrecht wherein the fiber paper reinforcement layer is interpreted to read on the coated reinforcement of claim 1 with the teachings of Hammer would have produced the same invention as claimed in claim 30.

32. Regarding claim 32: The casing of Siebrecht as modified by Hammer comprises the same materials as claimed in claim 1 and is therefore interpreted to be "inedible" as claimed in claim 32.

- 33. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siebrecht et al. U.S. Patent No. 5,043,194 (hereafter referred to as Siebrecht) and Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and reference, hereafter referred to as Hammer) as applied to claim 1 above in further view of Gord et al. U.S. Patent Application Publication No. 2002/0064580 (hereafter referred to as Gord).
- 34. Siebrecht and Hammer teach what has been recited above but are silent regarding the addition of polyvinyl acetate or polyacrylate.
- 35. Gord teaches a cellulose fiber based sausage casing coated with a solution comprising a protein such as gelatin and other additives. (Para. 18, 19) Polyvinyl acetate and polyacrylate are recited to be useful additives for the protein solution because they impart higher smoke permeability to the casing. (Para. 21)

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36. Siebrecht, Hammer and Gord are all directed towards sausage casings. One of ordinary skill would have been motivated to utilize polyvinyl acetate or polyacrylate as an additional additive in the coating necessary for the invention of Siebrecht in order to impart higher smoke permeability to the casing. The obvious modification of the invention of Siebrecht by utilizing the material of Hammer for the coating and polyvinyl acetate or polyacrylate as an additive in the coating in order to increase the smoke permeability of the casing would have produced the invention claimed in claim 9.

- 37. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siebrecht et al. U.S. Patent No. 5,043,194 (hereafter referred to as Siebrecht) and Hammer et al. WO98/34490 (U.S. Patent No. 6,902,783 used herein for translation and reference, hereafter referred to as Hammer) as applied to claim 1 above in further view of Jon et al. U.S. Patent No. 5,955,126 (hereafter referred to as Jon).
- 38. Siebrecht and Hammer teach what has been recited above but is silent regarding the addition of a polyvinylidene chloride copolymer layer.
- 39. Jon teaches a polyvinylidene chloride copolymer coated fiber reinforced cellulose casing coated with a solution comprising a protein. (Claims 1 and 6)
- 40. Siebrecht, Hammer and Jon are all directed towards sausage casings. As stated above, it is universally known in the sausage casing arts to utilize multilayer casings.

 Jon evidences that polyvinylidene chloride layers were known to be useful in combination with coated reinforced casings. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to have utilized a polyvinylidene chloride layer as an additional layer in the casing recited by Siebrecht, especially since Siebrecht discloses the use of additional layers. The utilization of such a layer in the casing of Siebrecht as additionally modified by Hammer would have produced the casing as claimed in claim 18.

Response to Arguments

- 41. Applicant's arguments filed 1/11/11 have been fully considered but they are not persuasive.
- 42. In response to applicant's arguments against the references individually on pages 11-19 of the remarks, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
- 43. Applicant asserts on page 12 that Siebrecht teaches away from an embodiment in which the coating is only present on the outside of the casing. However, this assertion is negated by Siebrecht's explicit disclosure that the coating may be disposed on the inside **and/or** outside of the casing. Therefore, applicant's assertion is not found persuasive.

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44. Applicant asserts on page 12 of the remarks that Siebrecht fails to disclose fibrous paper as a reinforcing material. This assertion is negated by Siebrecht's explicit disclosure of long fibered paper as enumerated above. Therefore, applicant's assertion is not found persuasive.

- 45. Applicant concedes on page 13 of the remarks that Hammer explicitly states that the composition of Hammer is "soft and flowable" yet still asserts that the composition of Hammer cannot form a coating. It is unclear to the examiner how a composition which is explicitly disclosed to be soft and flowable is incapable of in turn flowing over a substrate to form a coating as asserted by applicant. Furthermore, applicant has failed to provide any data to support this assertion. Applicant's repeated reference to an embodiment of Hammer comprising wood fibers and the assertions drawn therefrom are not germane since this embodiment was not relied upon by the examiner in the rejection of the instantly pending claims.
- 46. Applicant asserts that the composition of Hammer would fail to exhibit the properties of the casing claimed, however, aside from these generic assertions, applicant has failed to provide any technical reasoning to support this contention.

 Applicant has furthermore failed to identify a single compositional difference between the composition disclosed by Hammer and the instantly claimed coating composition.

 Applicant has failed to identify a single structural or compositional difference between the casing claimed and that produced by the combination of Siebrecht and Hammer.

 Therefore, absent any technical reasoning or experimental data, the examiner has a reasonable expectation that the casing of Siebrecht modified with Hammer, which would

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have comprised the same materials as claimed by applicant in ranges that overlap or encompass those claimed by applicant and which would have been used for the same purpose as applicant would have displayed the same properties as claimed by applicant.

- 47. Applicant asserts on page 15 that laminates as asserted by the examiner on page 7 of the previous office action "would be expected to have adhesive joining laminate layers". Applicant has failed to provide any basis for this assertion. There is no requirement in the laminate arts that different layers of materials are required to have adhesive between them. As noted above, clearly a composition which is "soft and flowable" is capable of being applied as a coating to form a laminate (i.e. simply a layered structure). Applicant's assertion is therefore not found persuasive.
- 48. Applicant asserts on page 16 of the remarks that claim 27 recites that the coating is "uniformly applied". This is not accurate. There is no recitation in claim 27, or any of the other instantly pending claims, that the coating be "uniformly applied". Applicant further asserts that the addition of pores to increase water vapor permeability as suggested by the examiner is purely conclusory. It is unclear to the examiner how including holes or pores in a film would yield any other result than increasing the permeability of the film. Therefore, applicant's assertions are not found persuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson Examiner /M. J./ Art Unit 1782

/Rena L. Dye/ Supervisory Patent Examiner, Art Unit 1782